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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/082,328 06/24/93 KNIGHT

T 7828003

EXAMINER

MM32/0209

PENNIE & EDMONDS
1155 AVENUE OF THE AMERICAS
NEW YORK NY 10036-2711

ART UNIT PAPER NUMBER

2835
DATE MAILED:

35
02/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/082,328

Applicant(s)

Knight et al.

Examiner

John Vigushin

Group Art Unit

2835



☒ Responsive to communication(s) filed on Dec 10, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1, 28, 37-48, 52-59, 102, 143, 144, 146, and 147 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 44 and 59 is/are allowed.

☒ Claim(s) 1, 28, 37-43, 45-48, 52-58, 102, 143, 144, 146, and 147 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on December 10, 1999 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/082,328 is acceptable and a CPA has been established. An action on the CPA follows.

The status of the claims in the instant CPA is as follows: Claims 2-27, 29-36, 49-51, 60-101, 103-142, 145 and 148-209 have been canceled, and Claims 1, 28, 37-48, 52-59, 102, 143, 144, 146 and 147 remain pending.

The Examiner notes that the instant CPA request was filed without any Preliminary Amendment containing amendments to the pending claims or arguments directed to the Examiner's Office Action of December 10, 1998 (Paper No. 30). Therefore, the Examiner has repeated hereinbelow the rejections in the above-mentioned Office Action (Paper No. 30).

Rejections Based On Prior Art

2. The following references were applied in the rejections hereinbelow:

US 5,103,283 (Hite)

US 4,982,311 (Dehaine et al.)

JP 63-15435 A (Tanaka)

US 5,404,265 (Moresco et al.)

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hite.

The “substrate” is represented by element 2. The “chip” is represented by element 10.

The “means for powering the chip” is represented by the inherent external structure connected to element 4 to provide power to the chip. The “means for capacitively signaling between the chip and the substrate” is represented by element 34 or 36. The “signal leads connected on the substrate and the chip” are represented by elements 38 and 40.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Dehaine et al.

The “substrate” is represented by element 16. The “chip” is represented by element 12.

The “means for powering the chip” is represented by element 15. The “means for capacitively signaling between the chip and the substrate” is represented by element 19. The “signal leads connected on the substrate and the chip” are represented by elements 18b and 38.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka.

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The “substrate” is represented by element 1. The “chip” is represented by element 5.

The “means for powering the chip” is represented by at least one of the elements 3. The “means for capacitively signaling between the chip and the substrate” is represented by element 7.

The “signal leads connected on the substrate and the chip” are represented by the traces on the substrate which connect to element 7 and the bonding pad on the active surface of the chip.

7. Claims 1, 28, 37-39, 41-43, 47, 52-58, 102, 143, 144, 146 and 147 are rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Moresco et al.

The “substrate” is represented by element 20. The “chip” is represented by element 10.

The “means for powering the chip” must inherently exist and is represented by whatever power supply system that is connected to element 20 to provide power to the chip 10. The “means for capacitively signaling between the chip and the substrate” is represented by the combination of elements 30', 40' and 50' where element 30' and 40' represent the first and second half capacitors. The “signal leads connected on the substrate and the chip” are represented by the traces on the substrate which connect to element 40' and the bonding pad on the active surface of the chip which is below element 30'.

:IMPORTANT NOTE:

The US 5,404,265 reference is a US patent awarded to Moresco et al. that claims the rejected invention. An affidavit or declaration is inappropriate under 37 CFR 1.131(a) when the patent is claiming the same patentable invention, see MPEP § 2306. The patent can only be

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overcome by establishing priority of invention through interference proceedings. See **MPEP Chapter 2300** for information on initiating interference proceedings.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 40, 45, 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moresco et al.

Claims 40, 45, 46 and 48 define over the structure of Moresco et al. by the requirement that **portions of the chip are passivated and securely fastened together**. It is an expedient in the art to provide a **passivation layer on the bottom surface of the chip adjacent to elements 30** for the purpose of **limiting the flow of solder and preventing the contacts from shorting together during the bonding process**. Furthermore, to use an adhesive material for the dielectric would also have been within the skill of a practitioner in the art in an effort to prevent the half capacitors from separating from one another.

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Allowable Subject Matter

10. Claims 44 and 59 have been allowed.

Status of the Present Office Action

11. All claims are drawn to the same invention claimed in the parent application prior to the filing of this Continued Prosecution Application under 37 CFR 1.53(d) and could have been finally rejected on the grounds and art of record in the next Office action. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing under 37 CFR 1.53(d). See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

:IMPORTANT NOTE:

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As this Office Action is a Final rejection, Applicants' response must either comply fully with all formal requirements or specifically traverse each requirement not complied with. The Examiner further draws the Applicants' attention to 37 CFR § 1.113 and CFR § 1.116 regarding the submission of after-final responses and amendments.

Conclusion

12. Due to changes in the Office, the present Examiner has replaced Primary Examiner Donald

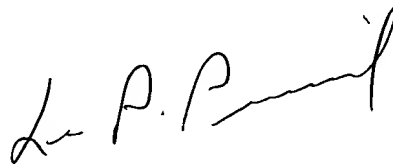
A. Sparks as the Examiner of record of the instant Application as of this Office Action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Vigushin whose telephone number is (703) 308-1205. The examiner can normally be reached on Monday to Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard, can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

John B. Vigushin
Assistant Examiner
February 08, 2000



**Leo P. Picard
Supervisory Patent Examiner
Technology Center 2800**